Vol. III. SEPTEMBER, 1918. No. 1.

THE
Madras Forest College Magazine.

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Madras Presidency.

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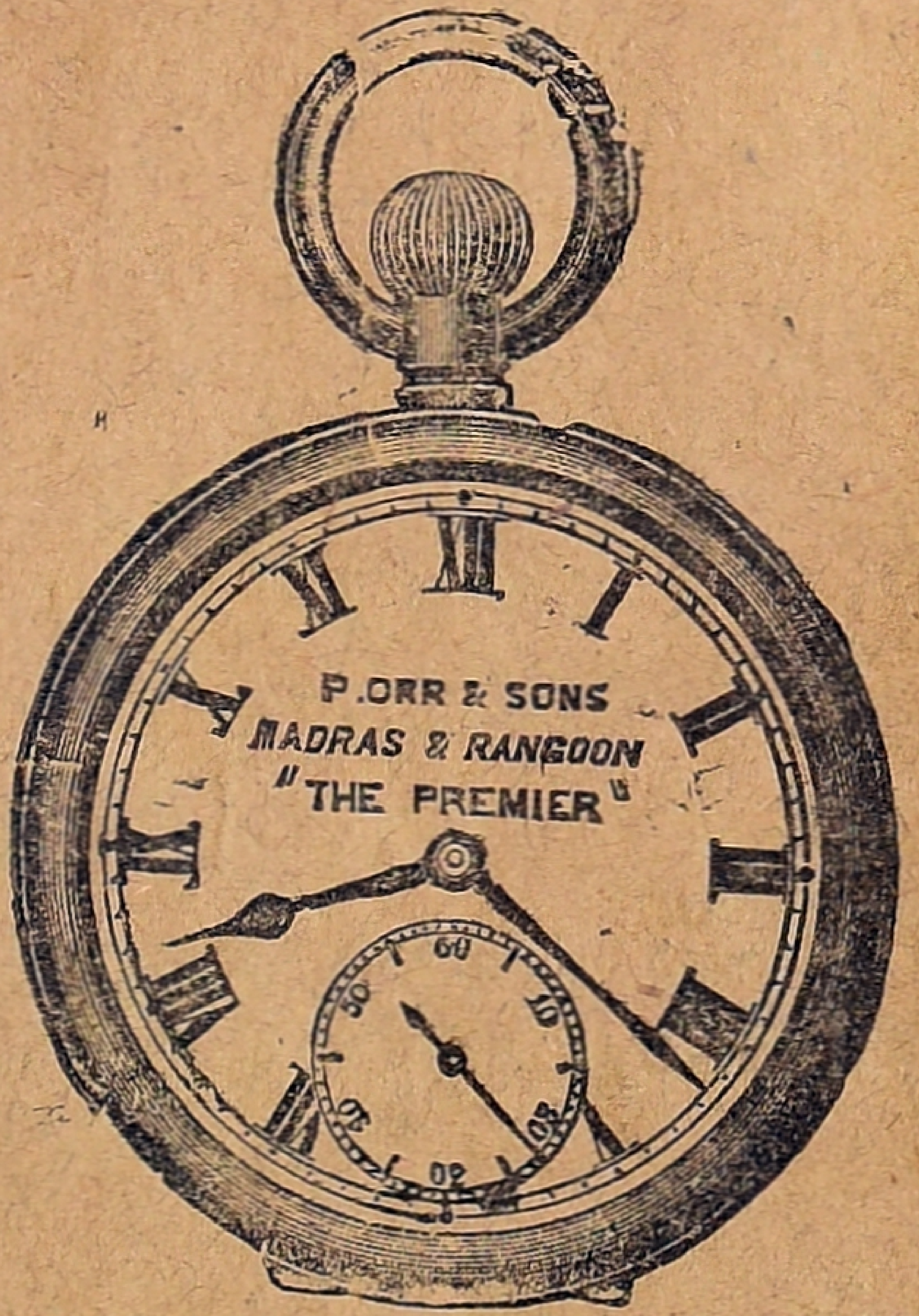

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Vol. III. September, 1918. No. 1.

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View from the Principal's bungalow, of the Madras Forest College and the Gass Forest Museum.

THE

Madras Forest College Magazine.

Published Quarterly.

Vol. III. September 1918. No. 1.

N. B:-Contributors are requested to send in their contributions typed or written legibly in ink on one side of the paper only.—Editor.

Ourselves.

The Madras Forest College has sent out the fifth batch of students with their mental and physical faculties considerably improved, and shaped for an efficient discharge of their duties as rangers. Of the 27 students, two got "Honours," twenty 'Madras ranger higher' and five 'Madras ranger lower' certificates. We congratulate Messrs. C. Srinivasa Rao and J. S. Rowland in particular, on their winning a number of medals, details of which will be found in the Principal's report published elsewhere. The prizes and certificates were distributed on the 1st July 1918, by Mrs. C. D. McCarthy when Hon. Mr. M. E. Couchman presided.

* * * * *

The College Magazine is now in the third year of its existence. We are glad to announce that the number of subscribers for the past year (1917–18) has been over 230 as against 195 of the previous year, (1916–17) and take this opportunity to tender thanks to our subscribers for their support both by way of subscriptions, and much less

materially by contributions of articles. The balance sheet of the Magazine accounts for the past year is published elsewhere.

* * * * *

The College and the Museum, were visited by His Excellency Lord Pentland P. C. G. C. I. E. and a party of Zemindars, during the middle of July. Among other distinguished visitors during June and July were, the Hon. Mr. L. E. Buckley I. C. S., the president and members of the Board of visitors, the examiners for the year, Mr. F. A. Lodge C. I. E. (Inspector General of Forests, Hyderabad) etc. Among the new features that attracted the attention of visitors this year were the 'Engineering Park' which owes its inception to Mr. E. M. Crothers, instructor, Madras Forest College, and the 'Arboretum' which contains a choice collection of plants, correctly labelled, for the edification of the students.

We are glad to be able to announce that, to the relief of the residents of the Forest College estate, a 'fuel depot' and 'Provision Stores' have been opened by the principal of the College. These, together with an assured and regular supply of good dairy produce from the Agricultural College will add considerably to the convenience and comfort of the people here.

It is appropriate here to mention another change in the College, viz., the opening of the 'Lawley Road dispensary' which is to be common for both the Forest and the Agricultural Colleges. The Forest College has no longer a medical officer of its own while at head quarters.

Prize day at the Madras Forest College.

The annual distribution of prizes and certificates to the successful students of the Madras Forest College was

held on the 1st July 1918 at the College with Hon. Mr. M. E. Couchman I. C. S., President of the Board of visitors, in the chair. Mr. E. M. Crothers, the House Tutor, was in charge of the general arrangements which were quite satisfactory. Among those present were :—the members of the board of visitors, Dr. C. A. Barber C. I. E. and Mrs. Barber, Mrs. McCarthy, Mrs. Bryant, Mr. and Mrs. Fischer, the principal, Messrs. Marjoribanks, H. F. A. Wood, Sayyid Abdul Qadir Sahib Bahadur, Rai Bahadur K. Rangachariar avergal, Messrs. Panchapagesa Iyer, Raman Menon, Littlewood and others.

Mr. F. L. C. Cowley-Brown the principal read the following report on the working of the college during the year :—

Mr. President, Members of the Board of Visitors, Ladies and Gentlemen:

The past year has been one of steady if uneventful progress. We are gradually consolidating our position here both metaphorically and physically. Our aims and requirements and our lines of work, both at Headquarters and on tour, have by now been fairly crystallised, and the uncertainty of experiment has been replaced by routine based on recorded precedent. As a result, both Staff and students know in advance what is expected, and consequently every year the machine works with greater ease and efficiency. With the completion of the Demonstration Forest there will be far greater scope at Headquarters for practical Forest and Survey work in all its branches. The Museum has been re-organised on more definitely instructional lines. I had the advantage of studying the scientifically arranged collections in the admirable Dehra Museums, and anticipate that with the arrival of the Sylvicultural and Utilisation models that the Dehra Officers have promised me, the Gass Museum will be of

more direct and daily instructional benefit and use than has hitherto been possible. The Arboretum and Engineering Park that have been laid out this year, will I anticipate, prove of marked educational value, and I have no hesitation in saying that in future years the practical side of the training here will be as thorough as the local circumstances permit and very much better than was originally expected. During the present term the students have put in about 12 hours a week of practical work on the Estate, and both students and Estate have benefited proportionately.

The Senior Division this year has been through a fairly thorough course of Gymnastics, and thanks to the generosity of a former Principal Mr. Fischer, whom we are delighted to welcome here once more as an Examiner, a permanent challenge cup for Gymnastics has been established.

The Athletic Ground and the Tennis Courts presented by the Government have been practically completed, to the very material advantage and convenience of the players and the tax on time and energy necessitated by bi-weekly expeditions to the Coronation Park is now only a memory of the past.

Since we last met nearly 2 miles of roads and paths have been laid down, more than 1000 trees have been planted in the avenues, the approaches to and connections between the hostels have been demarcated and consolidated, borders of evergreen and creepers have been started, a carpenter's shop has been opened, the Nursery has been resuscitated, and Badminton Courts have been prepared. A temporary reading room has been arranged for at the hostels, and members of the House Committee are given as far as possible two rooms each. Milk and dairy produce of the best quality is now obtained from

the Agricultural College dairy, and the keeping of cows and goats on the Estate is therefore practically prohibited. The result has been to the marked advantage of both the avenues and the health and convenience of the students: but I should not like to say that the change has been altogether welcomed by those individuals who considered that they had a vested right to graze sickly cows free on the College plants and to supply a mixture of milk and dirty water at their own rates.

Within the next few weeks a fuel depot and a provision store will be opened on the Estate.

To summarise the general position: the student is now very much more comfortable than he was in September 1915 when we took over the College, and infinitely more so than in the old buildings in the town.

The Senior Division to-day passing out is of a good average in every way, both at work and games. It is a better year than the last Senior Division and is in some ways a remarkable Division. The Examiners as a whole have reported favourably on the progress and capacity displayed, and I have informed the Board of Visitors that I am well pleased with the Division.

I will now no longer try the patience of the students but will read out the names of the winners of the prizes and certificates which Mrs. McCarthy has kindly consented to distribute: Mrs. McCarthy has always proved a good friend to the Forest College: and if I may venture to say so whenever she distributes prizes at our various gatherings, she adds to the pleasure of the recipients by looking as if she thoroughly enjoyed the function of conferring honours and happiness on others—as I am sure she does.

(1) Gold medal presented by Government for the highest Senior student at the College, C. Srinivasa Rao.

Second, J. S. Rowland.

(2) Silver medal for Honours, presented by Government, C. Srinivasa Rao,

J. S. Rowland.

(3) Compbell-Walker gold medal for the Senior student likely to make the best all round Ranger, C. Srinivasa Rao.

(4) Brasier gold medal for the Senior student likely to make the best out-door Ranger, A. B. Fenn.

(5) Lodge gold medal for the best Senior student in Engineering, J. S. Rowland.

Second, C. Srinivasa Rao.

(6) Silver medal presented by Government for the best Senior student in Forestry, C. Srinivasa Rao.

Second, A. B. Fenn.

(7) Silver medal presented by Government for the best Senior student in Survey, J. S. Rowland.

Second, C. Srinivasa Rao.

(8) Silver medal presented by Government for the best Senior student in Range Administration, S. G. Venkataramanan.

Second, C. Srinivasa Rao.

(9) Silver medal for the best Senior student in Botany, C. Srinivasa Rao.

Second, J. A Stephen.

(10) Indian Forester gold medal: This year the competition took the form of an essay : for former students the subject was " The special difficulties of Range Administration and how they are best met."

The envelope containing the name of the winner bears the motto " Nil Desperandum."

I will now open it : The Winner is L. T. Taylor.

The essay contained much that was meritorious and gave me at least some new ideas.

For the present students at the college the subject of the essay was "the best Forest Conservancy consists of wise usage."

No essay was sufficiently meritorious to merit a prize.

(11) Gold medal presented by the Board of visitors for the first Junior student in order of merit by marks : T. D. Ponniah.

(12) The Pentland challenge Shield for all-round Athletic proficiency—presented by His Excellency Lord Pentland. This is one of the hardest of all prizes to gain : the winner has to show a greater proficiency than that of his fellows in the Athletic Sports, Marathon Race, Hockey and cricket.

The winner this year is : C. S. Chengappah.

Second, P. K. Parameswaram Pillai.

(13) The 'Fischer challenge cup' for Gymnastics presented by C. E. C. Fischer Esquire: A. B. Fenn.

Madras Ranger higher Certificates.

Names in order of merit.

1. A. B. Fenn.
2. S. G. Venkataramanan.
3. B. S. Sankara Ayyar.
4. J. A. Stephen.
5. B. B. Syid Yahia.
6. B. T. Sitaraman.
7. A. Bhaviah.
8. A. Muthukrishnan.
9. J. Venugopal Naidu.
10. C. Vasu.
11. U. Thimmayya.
12. G. M. Bartholomeuz.
13. T. Kondathu Goundan.
14. P. K. Parameswaram Pillai.
15. Abdul Azeez.
16. I. Sambasiva Rao Naidu
17. K. Parthasarathy Ayyangar.
18. S. Sankara Alwa.
19. T. S. Ratnavelu Mudaliar.
20. C. R. Rajagopalan.

Madras Ranger Lower Certificates.

1. A. Vyasalu.
2. V. Arasaratnam.
3. M. Narasinga Rao Naidu.
4. Abdul Guffur.
5. A. K. Anantarama Ayyar.

I am glad to have this opportunity of drawing your attention, ladies and gentlemen, to the case of the Senior Student and Honours man C. Srinivasa Rao. He *was* an Instructor here but as his prospects were blocked he voluntarily resigned his Instructor-ship and became a student. His position here during the last two years has therefore been peculiar and perhaps not altogether comfortable. But he has never by one word or action showed that he in any way was conscious of the fact that he had been an Instructor. On the contrary as a student of exemplary conduct he has always been of material service and support to me. Such self-abnegation is I think as praiseworthy as it is remarkable.

In the department of athletics we have had average teams and have won or lost much the same percentage of matches as usual. The Club has lost in Mr. Bennett an able and enthusiastic Vice-President and coach, but I nevertheless hope that, thanks to the improved facilities for games, the standard will in future show a considerable rise. The outstanding performance of the year is Narasinga Rao's cricket record of 2 centuries 101 and 126 in 2 consecutive matches at a week's interval. His merits were recognised by the presentation of a bat, with an inscription on a silver plate. The inter-division Hockey produced a fine struggle which finally resulted after the match had been replayed 3 times in the Junior division winning by 3 goals to nil.

The Marathon race this year was signalised by the generous gift of an inter-division challenge cup by

Rissaldar Major Bahadur Amir Mahomed Khan the distinguished father of one of the Junior students. The cup was won by the Junior Division. The actual winner of the race was Parameswaram Pillai of the Senior Division.

The thanks of the College are due to those District Forest Officers who have supplied us with seeds, with Engineering Manuals, bamboos etc., and especially to Mr. Fischer for an extensive herbarium collection and Mr. Butcher the Curator of the Government Gardens on the Nilgiris who presented us free of cost with many comparatively rare plants for the Arboretum.

We are very greatly indebted to those District Forest Officers who laid themselves out to make us comfortable on tour. We *are* a nuisance undoubtedly to District Forest Officers, but we are sincerely grateful to those officers who recognise that the trouble we inevitably cause will eventually be compensated by the improved training of the students, thanks to the co-operation and help afforded us while in camp. Without the assistance and demonstrations of, for instance, Mr. Richmond, Mr. Venkataramanan and Mr. Bourne, the College tours this year would have been the poorer.

Col. Fearnside and his assistant have again this year kindly undertaken the examination in First Aid for the St. John Ambulance Certificates.

I am myself under great personal obligations to the Staff of the College for their devoted enthusiasm to the cause of training raw material into efficient Forest Rangers—and to Mr. Crothers in particular for the manner in which he has carried out the onerous and responsible task of House Tutor, and for his willing response to the many extra calls that I have made on his energy and leisure: to his initiative and skill is due the Engineering

Park. I am glad to see one or two old Students here this evening. I hope that it will be possible in future to make arrangements that will enable more to come.

And now students a word to you. You have probably noticed in the past that my remarks to you are usually not unlike the scorpion's tail—there is a sting at the end of it. Well, you shall have it now all right. You are not sufficiently responsive—and in that respect I am disappointed with you. The Government has done a great deal for you. You have this year been given an Athletic Ground, Tennis Courts, Dairy Produce, Badminton Courts, Additional prizes, paths, benches, carpenter's shop, newspapers, books for the students, library, extra privileges for the House Committee etc., etc. But I do not see a very material response when any invitation or demand is made for a little exceptional energy or devotion to the cause of *self*-development. Your united efforts to win the Indian Forester Prize were beneath contempt. I should like that comment to sink into your mind, in the hope that it will bear fruit next year in the shape of half a dozen really good essays from the present Junior Division. Thirteen of you have failed to take the opportunities for learning to swim that were provided for you : and believe me you are the poorer for it and the less efficient citizens. Then the Forest College Magazine : we do not get the amount of copy that we should from the body of the students—nearly all of you could write something of interest and probably of value also—but with the honourable exceptions of Srinivasa Rao, Venkataramanan, and some of the former students the majority of you either make no effort at all or but a fitful attempt under somewhat strong pressure. The Magazine has a useful future before it as a periodical edited and run mainly by a ranger class for the ranger class, stiffened from time to time by

contributions from gazetted and other officers. It should therefore become a channel of communication of the views and ideas of the ranger class—and we ought by this means to get many good and original ideas that will be of direct service to the department. But the magazine will not be run by the staff of the college as a poor imitation of the Indian Forester for the benefit of people too lethargic to write for it themselves. As we have no room for failures at the Madras Forest College the Magazine will be stopped unless the ranger class supports it by an adequate supply of copy. But its death will be to the discredit of past and present students of the college. Your comfort and convenience as well as your intellectual and physical welfare are studied as much as local conditions render possible here, but in return we expect a good deal from you, and it is up to you to see that we are not disappointed. Next year the Board of visitors, whose one aim is to benefit the college and to whose realisation of your intellectual difficulties several of you owe your Higher Standard Certificates to-day, the Board of Visitors I say hope that it will be possible to make the Prize Day in future more of a social link between past and present students. The possibility of students' vegetable and flower gardens is also being considered. But these, and similar advantages, will in great measure depend upon the spirit of responsiveness awakened. I have no doubt that the germ is there—and I hope to see it quickened into life in the near future. To those of you whose certificates are a source of congratulation I would say "Improve upon them by your post-college work" to those of you who are disappointed in the results I say "Remedy them by greater effort in future." You are only now commencing your profession. In future you rise or fall by your own efforts with very much less outside help that you have had here. Mr. Richmond showed the senior division in the last tour

that it is one thing to pass a brilliant examination in Engineering or to design and estimate a Forest road, but quite another thing to carry out that estimate and project. Cultivate the Forest Eye; don't leave logs of valuable timber to lie deteriorating in the Forest; don't leave broken gates and fences unmended; to-day is the best of all days for doing anything—to-morrow is the worst. Don't be afraid of making suggestions to your District Forest Officer such as the construction of a bridge to appreciate coupes. Don't forget that you have been taught to illustrate your reports by freehand drawings. Above all don't forget that you belong to the Madras Forest College and that its honour is in your hands.

I am proud to reflect that your conduct throughout the year has been uniformly good and to that fact I am indebted for one of the happiest of my 27 years professional career.

I wish you good bye and all the luck that you deserve."

The names of the winners were then read out, and Mrs. McCarthy distributed the medals, cups, and certificates amidst loud applause.

The Hon'ble Mr. Couchman.

The Chairman said :—"I always feel rather sorry for the Chairman on these occasions. What happens is that the Principal reads a very full account of the year's work and leaves very little for the Chairman to say. This is what has happened to-day. I have been trying to remember what the Chairman used to say at the prize givings when I was at school. The General impression that I have is that he distributes praise to the students

and staff for their good work, and tries to leave everyone well satisfied with themselves. The most distinct recollection, however, that I retain of these speeches is that the parts which we appreciated most were those which seemed to indicate that the speech would be a short one, and what we liked best of all was the last sentence. Bearing this in mind I will try not to keep you long.

The results of the year's work are that out of 27 students, two obtained honours, twenty got the Rangers' Higher Certificates, and five got the Lower Rangers' Certificates. None failed altogether. The examiners report that the average of the students was higher than usual. All of them got marks in the compulsory subjects entitling them to a Higher Certificate, some only failing in the minimum aggregate. Of the five who only got the Lower Certificate, some belong to other Administrations, and I understand that their failure to get the Higher Certificate will not injure their prospects. Those students from this Presidency who failed to get the Higher Certificate need not despair. If they show themselves fit for promotion to the Ranger's grade they may rise to it in the future. I have as usual to add that much of the success of the working of the College is due to Mr. Cowley-Brown. (Cheers). I see from the applause which his name evokes that he manages to combine efficiency with popularity, a rare accomplishment.

I do not propose to give the students any more good advice. They have received plenty of that from Mr. Cowley-Brown, and if they want any more, most of them are married men and can get it from their wives. (Laughter). All I will say now is to remind them that the Forest Department, particularly at the present time, offers exceptional opportunities for good men, that is to

say, men who are both honest and hard working. We have at the present time several District Forest Officers who began life as Deputy Rangers, and I hope that among the batch of students now leaving the College there are several who will rise in the same way to the Gazetted ranks.

Now I wish to make a few general remarks about the position of the Department. It is rather an interesting moment, because the Conservator has already to a great extent taken the place of the Collector, and the Chief Conservator will soon take the place of the Forest Commissioner. Probably this is the last time that Forest Commissioner will preside at this meeting.

In the first place it would be a mistake to suppose that these changes will at once introduce to millennium. It is almost inevitable that the head of the Department should be to some extent unpopular. If I may say so, it is his ~~meteor~~. He has to refuse leave to his subordinate, to refuse to sanction increase of establishments, to reject schemes and so on. Along with the powers of the Collector and Board, therefore, the Conservator and the Chief Conservator will have to take over some of their unpopularity. Of course the change is being made with all possible good-will on our part, and we hope that it will be successful.

Moreover, while hitherto, whenever your schemes were rejected by the Board, you have had the consolation of feeling certain that this is due to the ignorance of the Board of Forest matters, in the future you will be deprived of the comfort.

Another thing is that you would make a mistake if you supposed that the forest policy of the Government will in the future be governed more than before by strictly

professional considerations. The Government will remain, as before, responsible for all the actions of their subordinates. They will have to bear the unpopularity of measures which are based on a policy which looks farther ahead than the ryot looks. They will have to adjust the demands of their forest experts to the agricultural needs, the habits and even the prejudices of the people. As the masses of the people become more educated and articulate, they will bring increasing pressure to bear on the Government. The effect of the forthcoming political changes has also to be taken into account. The moral for the Forest Department is that it must try to remove all possible causes of friction between itself and the people as soon as possible. A great deal has been done lately in this direction. We must persevere on these lines, and rely on tactful and good administration to reduce friction.

I trust that one result of these changes will not be to foster the growth of a departmental spirit. A good departmental spirit is a very good thing. What I fear is the frame of mind which sticks up for the department right or wrong, and glosses over the mistakes of its men, from a mistaken *esprit de corps*. This would ruin the influence of the Forest Department with Government and the public, and, therefore, I hope that we shall never see any such thing. At present I see little signs of it, and I hope that this state of things may continue in the future.

At the present juncture, when the ties which have bound the Revenue and Forest Departments together are being loosened, I am desirous that they should part on good terms, and, therefore, I think it would be a good thing if there were more recognition on the part of Forest Officers of the great debt that they owe to the Revenue

Department. I remember when I first came out to India that Forest Reservation was in full swing. At every camp the Collector was besieged by crowds of ryots protesting that if their cattle and goats were prevented from grazing and browsing in the forests as before, and if they themselves were prevented from cutting down the trees at their own will and pleasure, absolute ruin stared them in the face. It would have been very easy and very popular if the District Officers and the Board and Government had given way to this clamour, and abandoned a good part of the forests proposed for reservation. On the whole, they stood firm and now the clamour has died down, and you have between 18,000 and 19,000 square miles of reserved forests, practically unhampered by troublesome rights and easements, a position which, I believe, excites the keenest envy of Forest Officers in other countries. It would be well if the older men among you, who remember this, were to explain to the younger men in the department that the present satisfactory position in this respect is due to the firm stand made by the Collectors, the Board and the Government of former days.

One more point before I sit down; it always strikes me that Forest Officers worry too much over their temporary disappointments. The District Forest Officer sitting in his lonely hut gets an order from the Board refusing to grant his Head Clerk that increase of pay for which he has been worrying him so long, or refusing to create that new appointment for the Head clerk's son-in-law, and at once he jumps to the conclusion that all is lost, and sits down and writes a furious letter to the Collector or the Conservator. I advise him to take a longer view. All may yet be well. At all events it is worth while waiting till to-morrow to see if the clouds will not roll by. In any case, this will not be the ruin of

the department. Perhaps another reason for this predisposition to despondency on the part of Forest Officers is the obvious fact that trees grow slowly. Each individual Forest Officer only stops a few years in one district and perhaps does not notice much improvement in that time. I have been long enough in India and in one district to see the vast change which is coming over the country in consequence of the reservation of the forests. Bare hills are being covered with tree growth and scrub jungle is growing up into properties of enormous value. Forest Officers should take a longer view. Just as a man working on a great building toils away every day, covered with dust and dirt and perspiration and at the end of each day sees no visible result of his work, but all the time the building is rising into the air, and will be a fine sight in course of time, in the same way a Forest Officer would take his small daily disappointments more philosophically if he realised that every day's work contributed something to a vast structure, the Forests of the Presidency, which will be a worthy memorial of his life's work." (Cheers).

Mr. Dawson, at the close of the proceedings, called for three cheers for the King, the Board of Visitors and the President, which were enthusiastically responded to and the meeting dissolved.

Forest Notes from Switzerland.

(Translated from La revue des Eaux et Forêts.)

During the last 6 months Swiss Sylviculturists have had a difficult task. The economical situation of our country so hardly tried by the war has been aggravated from week to week in spite of the meritorious efforts of the allies to revictual us.

As is well known besides of the food question that of fuel causes the most serious embarrassment to our Government. The fact that some good veins of coal have been found in the Canton of Valais and that the exploitation on a large scale has been undertaken of peat unworked in the greater part of our peat bogs during the last 20 years, the grave problem of transport of supplies to the factories and of fuel for cooking and for the heating of the houses has been by no means solved.

The supply of German coal in spite of the promises and undertakings of our neighbours from the north shows an ever descending curve which places Switzerland in a more and more disquieting situation.

Appeal has been made even more than in 1916 to the Swiss Forests and with reason ; for it is not with the object of restricting the liberty of proprietors, be they communes or private individuals, that the State has resolved after 40 years of restriction, legislation to undertake a material capitalization of the forest wealth of the country.

If on the one hand excessive cuttings have been restrained and important re-afforestation has been carried out in the mountainous regions, on the other hand it is possible without abuse to relax the reins a little and to actually realize certain reserved areas and thus to benefit by previous accumulation of material. Unfortunately these reserves are very unequally distributed and are to be found mainly in valleys not very accessible and lacking in means of transport.

At the beginning of 1917 the great effort that was required was for the purpose of helping the paper industry. But during the last six months the pulp interests have been relegated to a second place and now the production of fuel has to take preference. Certain cantons last June had

already adopted special measures to stimulate exploitation and particularly to distribute the firewood judiciously.

In the month of August the question was taken up by the Federal Power which now exercises control over the supply so that certain cantons export to other cantons that are deficient in wood fuel. Moreover in order to prevent profiteering and monopolies public auctions are forbidden.

It will be obvious that our most populous towns such as Geneva, Zurich, Berne, and Basle, crowned as they are with comparatively little forest, cannot actually satisfy the enormous demands of the consumers deprived of charcoal. There is no longer any store of dry wood in reserve in the forest and very little anywhere in the urban centres : consequently green or at the most partially dry wood has had to be burnt while the agriculturists live on their stocks formed during the past winter.

Maximum prices have been fixed ; they vary between Rs. 14 and 15 per unit of broad-leaves and Rs. 12 and Rs. 14 for conifers free on rail.

It will be evident that for the present winter the problem of firewood or peat for cooking and heating has not been solved : for there has been no time during the summer to cut enough stacks to dry for subsequent consumption only after proper preparation.

In the canton of Vand for example the public forests (State and Communal) have been burdened with a heavy contribution for exportation on the assumption that Forest communes have enough and to spare for their less favoured neighbours.

The chief difficulty in the production of fuel is to be found in the question of wood-cutters' labour. Experience during the last 6 months in the exploitation of wood either

by idlers from towns or by the interned has given very unsatisfactory results, for the reason that the labourers so improvised show themselves in general to be unsuited for this rough work demanding as it does great physical energy, adroitness and power to withstand hardship.

The second difficulty is the question of transport which depends on the quality of the draft animals and on the facilities for obtaining wagons. Actually as is well known our railways in order to make sure of the victualling of Switzerland have to send beyond the frontier a large proportion of their rolling stock.

The scarcity and exorbitant price of corn renders animal transport outside the forest exceedingly costly. The consequence of this double restriction further aggravated by the lack of petrol, which prohibits the employment of motor lorries, is that wood fuel has not arrived sufficiently quickly or in the necessary quantities at the centres of consumption to enable it to be cut up and dried.

In spite of repeated efforts on the part of the Forest Administration the Army Department has not yet agreed to mobilise in the forest a sufficient number of soldier woodsmen. The result of this opposition is that next winter we shall have to continue to burn green wood and consequently to waste a large quantity of fuel.

The Swiss forests have also been laid under contribution for the production of silver fir and spruce in log. The Allies' demand for such material is always very considerable. It is well known that sawn timber is exchanged for food and other products indispensable to us.

The price of timber is always rising. The Government constantly talks of fixing a maximum. The Forest Administration is opposed to such a measure.

Our railways had adopted 20 years ago metal sleepers but before the war had to some extent given them up. Now they are unable to import wooden sleepers; further our own forests have to contribute to this end and the foresters are thus burdened with an addition to their work.

Actually the cantons have to make a certain supply of sleepers; these are taken not only from the Fellings of oak and beech but also from pine and larch. This permits us to place on the market a large quantity of assorted species. Our Railway Administration thus now admits four different species whereas previously only oak sleepers, and very rarely those of beech, were ever accepted.

What will be the aspect of the Swiss Forest after the war? Certainly it will be very different from that of the forests on the western front, since hitherto the stress of battle has spared out woods. It is nevertheless true that our forests will be hardly tried, and perhaps even over-exploited or exhausted, if the situation is prolonged for several years more.

Our authorities are fully occupied with this question and in spite of our conservative laws, which are perhaps the most drastic in Europe and which have assured to us the existence of magnificent supplies in reserve especially on the mountains, it is necessary now without further delay for us to take up the question of intensive treatment, of stimulating the increment, of extending considerably the net-work of roads and multiplying the ropeways in the Alps, and above all of increasing the number of officers which is obviously still very inadequate.

In Switzerland all forests, whether Public or Private, are rigidly controlled by the State. In Forests of Protection grazing is absolutely prohibited. Zurich Town Forest has

been under systematic management since the 13th century; its clear profit is about Rs. 30 per acre per annum.

Editor.

The special difficulties of Range administration and how they are best met.

(We publish below, the essay for the 'Indian Forester' Prize for past students, by Mr. L. J. Taylor, the winner :—)

"The source of most of the information that goes to make up the Annual Administration Report of the Forest Department, emenates from a Range; such being the case, range administration is a task both arduous and responsible, and the difficulties a range officer has to contend with during the course of his administration, are many and various. These difficulties arise both in the office and in the field, the former generally being the outcome of mismanagement in the latter.

I do not intend in these pages to discuss all these difficulties as that would not be compatible with the space at my disposal, I shall therefore confine myself to dealing, broadly, with a few of the special difficulties a Range Officer experiences in administrating his range.

The first difficulty is experienced on assuming charge. He comes as it were, into possession of a large estate, and does not know what it consists of. The relieved officer is able at the time to give him a vague idea of his possessions, and that is all. There is very little on record, and it takes the new Range Officer the best part of three months to find out all about his range.

Judging from the nature of the records left behind by them, few Rangers seem to realise the fact that the administration of a range is continuous—I had to find out for my-

self all about the range, why shouldn't my reliever do likewise? is apparently their maxim, and consequently Forest Note Book, Control Journal and measurement book, are all left neglected, and the relieving officer suffers. "I'm sorry I couldn't tell you Sir" is his reply to some query of the District Forest Officer, "I've just been transferred here."

The only way to remedy this, is to insist on the proper maintenance of the above named registers.

The forest note book should show one at a glance, the nature of the forests he comes into possession of, the produce they contain and the approximate quantity of the several produces available.

The Control Journal should show, from past working, the yield and demand of the several produces with their prices, markets etc. The pages under the heading "History of the working circles from year to year"—alone, ought to give any relieving Range Officer, all the information he desires, regarding what has been, and is taking place in the range. The measurement book is another most important record to be maintained. It is very often the case, that a Range Officer is posted to a range where several large works are in progress. He knows that the works are going on, but what has been done, and what paid for, he has not the faintest idea. A properly maintained measurement book will show him at once the total quantity of work turned out, and the amounts paid, under the several items of work, and he has simply to carry on.

I shall now turn to another difficulty which I believe is general in all ranges. This is the question of labour. The difficulty arises from various causes.

The Forest Subordinate i. e. the forest guard and watcher class is one of the most poorly paid in the Presidency and he has got to live. This he does by oppressing and

harassing the people, chiefly the Ryots. As a consequence there arises amongst the people a sort of resentment and antipathy against the Forest Department, whom they get to regard as their "Bete Noir."

Again. The sanctioned allotment for many works is much below what the work can be got done for, conscientiously. The forest guard knows this, and as he is made responsible for having the work done, he coerces the people into coming to work, by threats and other means and gets the work done some how. Meanwhile he pockets the money, and as a sort of compensation, allows the people to remove some of the produce from the Reserve. The irony of it though is that he generally manages to show some savings.

The remedy for this is obvious.—A thorough re-organisation of the subordinate staff. Do away with the watchers, and better the prospects of the Forest Guards. If the recruitment of them is made from men of respectable families with a certain standard of education, things will, I am sure, get on much better, only their prospects must be bettered, or else the men would have no incentive to work honestly.

Regarding the sanctioned allotment for works, this should be raised to a reasonable figure. A Range Officer from practical experience, knows what the works will cost, accept then, and pass the estimates he sends in. I will never believe that any self respecting Range Officer would try to swindle the Government.

An estimate prepared by a Range Officer who knows his work, is very often returned with the remark that the work has been done at such and such a cost in previous years. Yes, but do the authorities know how?

With the increase in sanction, the Ranger, should make every endeavour to pay for all works himself. This is often

impracticable in a range where the work is heavy, but can be remedied by making enquiries, when subsequently camping in a place where work has been done and paid for by subordinates, as to whether the amount has actually been disbursed. The result of the enquiry will either be satisfactory or—a charge sheet.

In places like the Javadis, where the forest village system is in force, the labour problem, for ordinary works is not so difficult, and the practice of entering up all work done and paid for, in a measurement book supplied to the headman of each village, gives no scope for dis-honesty among the subordinates. What though, is a real difficulty on the Javadis, is the inability to secure skilled labour from the plains, for building construction and other important works. The occurrence of a few casualities among the men who had already gone up, and the already notorious reputation which the Javadis have, for their fever giving propensities, has resulted in scaring the people of the plains to such an extent, that not even the most exorbitant rates, will induce them to go up.

Speaking of buildings and other important works, recalls to mind another rather serious difficulty which a Ranger has to contend with in range administration.

There are several ranges where in addition to heavy work in forestry, the Range Officer has to devote a fair amount of his time in attending to the construction of roads, buildings and other engineering works.

With an adequate staff of skilled subordinates, this would be all right, but under existing circumstances, with the department undermanned as it is, it is rather hard on the Range Officer and is frequently a source of worry and annoyance to him.

latter
~~former~~

The remedy I would suggest for this, is to divide the forestry from the engineering section of forest work, appointing a special staff to attend to the ~~latter~~. This is quite feasible, and is, if I am not mistaken, in force in several districts. Why not in all? It would relieve the Range Officer of a fair amount of worry, and allow him to devote more of his time to forestry, which after all, is the more important. Of course his training in engineering will enable him to attend to the small works, such as repairs, and also to generally supervise the work of the forest engineering staff.

I come now to a difficulty in range administration, which I am sure almost all Range Officers experience, and which I am afraid, few take the necessary measures to combat.

I refer to the control of his subordinates.

In his subordinates, the Range Officer has the means of efficiently administrating his range. They are as it were, the steering wheels of his administration, and it is for him to steer in the right course.

The majority of forest subordinates are as a rule not very energetic, they need a little bit of driving, and in driving, require careful handling. A certain amount of kindness and encouragement, do a lot to make a man work, and this coupled with the enforcement of discipline, should be the Range Officer's policy towards his subordinates.

Don't give a subordinate more work than he can reasonably be expected to do. There is such a thing as, Division of labour, and if a work can be got done by two or more subordinates conveniently divide it, and make each responsible for his share.

It is a mistake giving a man too many works to be attended to at the same time. At times it is unavoidable,

but it should be discouraged. Let him complete one and then give him another.

Forest guards should each be provided with maps of their beats. These should show the limits of the different working circles (Timber, Fuel etc.) comprised therein. The areas under working should be pointed out to them by the Range Officer, and it is for them to see that no irregularities occur.

They should also be provided with an Order Book, which they should always carry with them during inspections by their superiors. If during an inspection, any irregularities are observed, the forest guard can be given a written order on the spot, to have them rectified. On his next inspection the Range Officer can inspect the Order Book, see what orders have been passed, and find out whether they have been carried out. If not, the man can be dealt with on the evidence recorded in the book.

The occurrence of fires is another thing which is very often due to lack of control over the forest guard. This evil can, I am sure, be greatly mitigated, by proper precautionary measures at the outset.

Directly the fire season commences, each forest guard must be ordered to patrol his reserve line with his watchers. Each man must be apportioned off a certain distance, and it will be his duty to patrol that. At intervals of every two or three minutes, as they walk along, the forest guard should blow his whistle, and the watchers, if not provided with them, give a long call. This will certainly if kept up regularly, deter any one, bent on mischief, from entering the reserve. The subordinates are however apt to slacken in this work, but surprise inspections by the Range Officer, ought to keep them up to the mark.

Another thing which should be done, and which will certainly have a moral effect on the people, is to take the names and addresses of all people entering the reserve, such as graziers, wood cutters and removers of minor produce. By this means though we may not completely protect the forest from fire, we will probably find that there will be a less number of fires than if this were not done.

In setting down the above difficulties, I have taken those which I believe are most general, and as remedial measures, I have suggested those which appeal to me as being most practical. This however is a matter of opinion. Difficulties there are in range administration, and difficulties there will be, in spite of all measures taken to combat them, though they may be in a way alleviated. To those however, who are of a pessimistic turn, regarding how these difficulties are to be met, I would suggest the adoption of the policy of the men at the front. Pack up your troubles in your old kit bag and Smile, Smile, Smile.

"Nil Desperandum."

Extracts:—

The following extracts from the 'Pioneer' are of interest.

How hoarding rupees helps the Germans.

The Central Publicity Board has issued the following:–

How can I help to win the war? is the question which should be present in the mind of everyone in India to-day. Very many thousands of Indian soldiers have fought gallantly side by side with their British comrades in France, Mesopotamia, Egypt, Palestine and elsewhere, and great services has been performed by Indian lascars and by labour corps raised in various parts of India. Everyone cannot go out to fight, but there are few who cannot assist in one way or another to back up our soldiers in the field. Armies

consisting of men drawn from India, from England, from France and from the United States are protecting India from an enemy who if successful would rob and oppress the people of this country, and therefore it is the duty of every true Indian to help in every possible way the soldiers who are bravely fighting for them. It is astonishing but it is none the less true that there are people in India to-day who instead of assisting to win the war are hindering the efforts of the army and are even helping the enemy. They do not know the harm they are doing; they do not understand that their action is making it more difficult for victory to be won and for peace to be restored to the nations of the earth. In modern warfare it is not only the soldier who has to play his part. The armies actually fighting must be supplied with rifles, guns ammunition, food and many other things which have to be produced by people who stay at home, and have to be sent by ships long distances over the sea to the soldiers in the field. Those who make it more difficult for the supplies to be produced and for the ships to carry them to the fighting men are assisting the Germans and their Allies as surely as if they are actually working for the enemy.

It may be said that no one in India would willingly injure the soldiers of his own country who are fighting his battles or would add to the hardships which they have to face. This may be true, but it is also true that people who during the war hoard rupees by burying them, by locking them up in boxes, or by melting them down for use as ornaments are doing serious harm to their own country and to all the countries which are engaged in fighting for the liberty of mankind. Even those thoughtless people who buy silver ornaments are thereby encouraging the practice of melting as the silver used for making these ornaments cannot at the present time be obtained in any other way. Such persons probably do not know that if rupees are

hoarded in India the Government have to buy silver in far distant foreign lands, and to bring it enormous distances across the sea in order to make the new rupees which are necessary to carry on the business of the country. Here is a fact which will help to show what hoarding means. During the last two years the Government have been compelled to buy silver in order to coin no less than 50 crores of rupees to take the place of those, which have been thoughtlessly hoarded by people in India. Further they have now found it necessary to make arrangements to bring from our great friend and Ally, America, an additional amount of silver to enable them to coin 50 crores more of rupees. A large part of this silver is on its way to India and the remainder will shortly be sent here.

The supply and purchase of these huge quantities of silver are very wasteful in many ways. In the first place these purchase mean that India sends her resources abroad in return for mere metal. If the Government of India had lent the money required to buy this silver, India would have received interest thereon amounting to more than Rs. 5 crores a year. This additional income would have made it possible for the Government either to reduce taxation or else to spend larger amounts for the benefit of India either by providing for better education or sanitation, or in other ways.

Again, we can in this matter learn a lesson from our enemies. Germany has been able to carry on the war for so long largely because she adopts as one guiding principle that of "waste nothing." The hoarding of silver in India is a most flagrant waste of an essential of war. Exactly the same applies to the hoarding of gold. It is almost as bad as burying shells and other ammunition instead of letting them be used against the enemy. The Prime Minister of England has told us that silver bullets will win the war,

and yet in India, by hoarding our silver and glod, we are hiding away silver and gold bullets, so that they can be of no help in winning victory.

It is also important to mention that in all other countries except India a note issue has been developed and popularised in order to economise the metal used for coin. This is especially the case in Japan where very small notes, indeed are now in circulation. India is the only country which uses metallic coin instead of notes to the enormous extent which she now does. The result is that people of other countries are benefiting greatly from this policy, so that they grow richer at India's expense.

Apart from the effect of the practice of hoarding on the wealth of India, it must also be remembered that the production of silver from the mines of America calls for the labour of men who would otherwise be engaged in war work, as the Americans are fighting on our side and the soldiers they have sent to the battlefield require enormous quantities of food and military supplies to enable them to conquer the enemy. The silver which America is sending to India has to be taken in trains to the seaports and this adds to the difficulties of working the American railways when they are engaged in carrying supplies for the war. Then when the silver has reached the ports it has to be taken many thousands of miles by ship to this country at a time when every vessel is wanted for the purposes of the war and for conveying articles which people in India would be very glad to have such as cotton cloth and salt which at the present time owing to the demands for ships for other purposes cannot be brought to this country in the same quantities as before the war. The consequence of the shortage of ships is that the stocks of cloth and salt as well as of other articles used by the people of India are much smaller than in ordinary times and that prices are much higher.

It has been shown that huge amounts of silver have been bought by the Government within the past two years. But even these will not be sufficient to provide rupees if hoarding continues, and it cannot be too strongly declared that this practice is most harmful to India and to her soldiers. In the first place, instead of spending money to buy the silver, India could have drawn interest upon it and money could then have been spent in providing rifles, clothes and food for soldiers, and in building more ships which might have brought to this country articles that every one wishes to have such as salt and cotton cloth just mentioned. Secondly, since hoarding makes it more difficult to obtain articles like salt and cotton cloth the prices of these articles as well as of foodstuffs and other necessaries are raised and the people who hoard are thus injuring themselves and their friends.

There is no reason whatever why people should hoard rupees in India. The Government is just and powerful and there are many opportunities for safely investing money which is not required for the time being so that it can earn interest and increase the wealth of its owner. In all foreign countries which have become rich and prosperous, the people instead of hoarding use the money which they have to spare to make more money, and they thus benefit not only themselves but the whole community. There are Post Office savings banks and Government loans in which they can invest and from which they can draw interest and their money when used in this way is not liable to be lost or stolen by thieves, as it would be if they followed the practice of hoarding which is so common in this country. In India, too, as has been stated, plenty of opportunities can be found for placing money where it is absolutely safe and where it can earn good interest. If a person has spare money which he is likely to want at short notice he can deposit it in the Post Office savings bank or buy Post Office

cash certificates with it. Or if he is not likely to require it immediately he can invest it in War Bonds which pay a very substantial rate of interest. It is a direct benefit to him to use it in either of these ways. It is also a direct benefit to the country since any money lent to Government will be spent in India in buying for the soldiers wheat, rice and other foodstuffs as well as jute, cotton, hides, boots and shoes. A large demand for all these means good profit for the ryots and other producers and adds to the wealth and prosperity of the whole country.

It will be clear then to any one who looks at the question of hoarding intelligently that the practice is a bad and a foolish one. Hoarding injures the soldiers who are fighting for India and thus helps the enemies of the Indian people. It also prevents money from being used to earn profits in the shape of interest, and it makes more difficult for Government to buy Indian produce for the use of the Armies in the field. Great harm is done in the world by want of thought. The hoarding of rupees in India affords an illustration of this truth. It is not too much, however, to believe that once the facts are realised every patriotic Indian will not only avoid hoarding himself but will do all in his power to persuade others from following a practice which benefits and assists the bitterest foes of his country.

Why I should subscribe to the War Loan.

BECAUSE :—

Every rupee subscribed to the War Loan helps to beat the Germans.

Every rupee subscribed to the War Loan will be spent in India and strengthen her agriculture and her industries.

Every rupee subscribed to the War Loan will help to keep down prices by reducing the currency.

Every rupee subscribed to the War Loan increases the national wealth of India.

We have promised the King-Emperor 150 crores of rupees towards the cost of the war. If we raise all this money in India, we shall keep 539 lakhs of rupees in India every year instead of sending it out of India to pay interest and because thousands of men are dying on the battlefield every day to defend Freedom, Right and Humanity from German brutality, and to save India from the Hun; the least we can do is to save and lend.

What is the Loan?

The War Loan is issued in four classes to meet the case of different classes of investors :—

Per cent.

(1) $5\frac{1}{2}$ per cent Income Tax Free War Bonds, 1921 (repayable on the 15th September, 1921, at Rs. 100 per cent) .... $5\frac{1}{2}$

(2) $5\frac{1}{2}$ per cent Income Tax Free War Bonds, 1923 (repayable on the 15th September, 1923, at Rs. 100 per cent) .... $5\frac{1}{2}$

(3) $5\frac{1}{2}$ per cent Income Tax Free War Bonds, 1925 (repayable on the 15th September, 1925, at Rs. 103 per cent) .... $5\frac{7}{8}$

(4) $5\frac{1}{2}$ per cent Income Tax Free War Bonds, 1928 (repayable on the 15th September, 1928, at Rs. 105 per cent) .... $5\frac{7}{8}$

The longer the term of the bond, the greater the yield to the investor. The wise investor will therefore invest in Ten Year Bonds, giving him a return of $5\frac{7}{8}$ per cent or a bonus of five rupees on every hundred rupees at the end of ten years.

How to invest.

The Man with Cash :—The man with cash can make

account, he has only to send a cheque to his bankers with instructions to buy, 3, 5, 7, or 10 year Bonds of the value of the cheque.

If his capital is in the form of Notes or rupees, he has only to present these Notes or rupees at controller of Currency's Office, Calcutta.

Bengal, Bombay, Madras } Presidency Banks.

Any Accountant-General's Office.

Any Government Treasury or Sub-Treasury.

The War Loan Office of his Province.

War Bonds for Rs. 25 and upwards can be purchased up to Rs. 10,000 at any Post Office.

The Man without Capital :—Many men are without capital or possess only a small capital, but they can save from their income every month and would like to invest these savings in the war loan. All the banks in India will assist them. Take the case of the man who wishes to invest Rs. 1,000. All he has to do is to send to any of the undermentioned banks Rs. 50 and undertake to pay Rs. 40 a month for 23 months and Rs. 30 on the 24th month. The bank will buy his bonds, keep them in safe custody, and deliver them to him free of charge when the instalments are complete. The following banks will assist in this manner :—

The Bank of Bengal.

The Bank of Bombay.

The Bank of Madras.

The Chartered Bank.

The Central Bank of India.

The Tata Industrial Bank.

Other banks will arrange special terms.

The Small Man :—Many who would like to subscribe cannot afford to invest in War Bonds. Almost everyone can afford to buy a Cash Certificate. These are sold at all Post Offices on the following terms :—

Original Price.			Purchase price by Government after five years.
Rs.	A.	P.	Rs.
7	12	0	10
15	8	0	20
38	12	0	50
77	8	0	100
387	8	0	500

These certificates can be cashed at any time during the five years with increasing interest.

Forms of Bonds.

War Bonds are issued in three forms—
Inscribed Stock Certificates.
Government Promissory Notes.

Both these will be exchanged free of cost for Bearer Bonds when Bonds are available.

The most convenient bond for those who keep their securities with a Bank is the Bearer Bond, it can be transferred as easily as a Currency Note. The disadvantage is that if lost it cannot always be traced. Inscribed Stock and Promissory Notes are quite secure.

For those who wish to keep their securities in their own possession Inscribed Stock is the mort satisfactory form. There is no risk since a fresh certificate is issued on satisfactory evidence of loss by theft, fire, etc. Further, holders of Inscribed Stock need not present them in person or by agent when interest becomes due; but interest warrants (which are practically cheques) are sent on the

due date to the holder at any address and payable at any Treasury which he previously designates

SPECIAL RIGHTS.

Interest on all War Bonds is paid Free of Income Tax.

War Bonds will be accepted as cash at their face value for subscriptions to New Loans. Advance interest at the rate of $5\frac{1}{2}$ per cent will be paid from the date of purchase until the 14th September.

No fees are charged on the transfer of Government securities.

This loan is secured on the revenues of India. India has a very small unproductive debt; the security is the best in the world.

Full facilities are given for the exchange of securities from one form to another.

The Buried Sword.

This is the tale of the man who buried his sword to keep it safe. He said, "This sword enabled my father, and his father, to protect themselves against dacoits. It is an invaluable possession, and must be safeguarded." So he buried it. A celebrated dacoit got wind of this. "Now," said he, "is my chance." And he went, and fell upon the defenceless man, and took his women and all his goods, and enslaved him. And whether he found the buried sword, or whether it remained buried in the ground, does not matter; it was no longer any good to its owner. Now this is a parable.

The present war is a war of resources. In the old simple days, when each man had to protect himself against possible enemies, without his weapon he was helpless. In

these days, people fight, not only with swords, but with all they possess, for all they possess. Money, no less than men, is a people's weapon. What will happen to a people that buries that weapon? What happened to the man in the parable? His father had used his weapon to protect his life, his liberty and his belongings. And his weapon was no worse in the end; on the contrary, use had greatly improved it. He handed it on to his son better than ever.

Money is our weapon. Let us use it for the defeat of our foes, who if they could, would rob and enslave us, as they heve already robbed and enslaved small States like Belgium and Servia, outraged their women and destroyed their lands. It is our vital interest to lend our weapon, our money to the Government,—knowing that we shall receive back, when our liberties are assured, far more than we ever lent.

Killing trees with arsenic (continued).

Adverting to the note under the above heading on page 66 of Vol. II, No. 2, of the Magazine, the following further information is perhaps of interest.

It was remarked last year that the coppice shoots from the poisoned trees were less copious and healthy than those from the girdled, and that some poisoned trees had not completely died. By the month of May of the current year, that is, about eight months later, it was found that nearly all the coppice shoots had completely died, and six more (poisoned) trees that were not quite dead in September 1917 have since died.

G. V.

14-6-18.

Occasional Notes.

Supply stores for provisions and fuel at rates settled by the House committee have now been opened.

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Mr. Krishna Ayyar (1914—16 division) has been enrolled as a Surveyor for Mesopotamia on 112/8. We hope he will soon write on his experiences.

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The following back numbers of the Indian Forester have been received from Mr. R. D. Richmond, Deputy Conservator of Forests :—

Volume IX { No. 3 March 1883
No. 4 April 1883 Vol. XI No. 5 May 1885.
No. 6 June 1883
No. 7 July 1883 Vol. XIII No. I to II
January to November 1887.

Supplement April................1884

The following back numbers have been promised by Mr. P. M. Lushington, Conservator of Forests:—

July 1875 to April 1876	1882 July to December.
July 1878 to April 1879	1883 Complete.
July 1879 to April 1880	1884 Complete.
	1885 Complete.
	1886 Complete.

Volume XIII No. 12, December 1887.

The thanks of the College are due to these Officers. If any Officer possesses, and is disposed to part with, the vols. or numbers advertised as still wanting in this number of the Magazine, he will confer a benefit on the College.

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The following communication has been received from the D. P. W. with reference to the Tomb on the South boundary of Compartment C Demonstration Forest.

"With reference to your No. 1682M/505 B d/the 11th instant, I have the honour to state that the tomb in question is that of Captain R. Temple killed on 13th December 1783. The following note is given by Mr. J. J. Cotton.

Large square tomb on the Mettupalayam road within a mile of the Coimbatore toll gate. The inscription is of rude type of different sizes and the officer commemorated was probably killed at the seige of Coimbatore."

List of Contributions to the Gass Forest Museum since June 1918.

No.	Contribution.	Contributor,
1.	A bundle of 'Odai' bamboos.	C. M- Hodgson, Esq., I. F. S,
2.	A suspected spiked sandal branch.	P. M. Lushington, Esq., I. F. S.
3-	A viper with its prey—a lizzard just swallowed—taken out of its stomach.	C. B. Dawson, Esq., I. F. S,
4.	A caterpillar defoliating Pongamia glabra.	Mr. J. S. Rowland, M. R. Hons.
5.	A Sholaga gun	L. S. Janes, Esq.
6.	Seventy one sample pencils made of different woods, at the pencil factory Madras.	C. A. Innes Esq., I. C. S.

Notice.

The manager receives numerous letters and post cards (the latter preponderating) regarding changes of address etc., but unfortunately he is compelled to assign the majority of these to the waste paper basket being unable to unravel the hieroglyphical signatures appended to such correspondence. The manager requests that persons desirous of having their wishes attended to will kindly write their names legibly.

Manager,

Gazette Notifications.

May 14, 1918.

M. R. Ry., N. E. Kanakayya, Ranger, fifth grade, *sub pro-tem*, and temporary District Assistant Recruiting Officer, Bellary District, will, after the expiry of the one and a half months' privilege leave granted in Bellary Collector's D. Dis. No. 1059, dated 31st March 1918, join his former appointment as Range Officer, Bellary Range.

The six months' combined leave (privilege leave for two months and leave on private affairs for four months) granted to M. R. Ry., M. Subroil Nayudu, Ranger, third grade, Nellore district, in this office Service Order No. 157, dated 15th October 1917, from the afternoon of 7th November 1917, is extended by six month's leave on medical certificate on half pay.

M. R. Ry., N. E. Kanakayya, Ranger, fifth grade, *sub pro-tem* and temporary District Assistant Recruiting Officer, Bellary District, is, after expiry of the one and a half months' privilege leave granted in Bellary Collector's D. Dis. No. 1059, dated 31st March 1918, and in modification of paragraph 1 of this Office Service Order No. 60 dated 6th May 1918, posted to the charge of Rapur range, Nellore district. (This cancels this Office Service Order No. 57, dated 1918 posting No. (1), Rapur Range.)

M. R. Ry., N. K. Sarma, Ranger, fourth grade, is granted privilege leave for one month and 25 days under art. 260 of the C. S. R., with effect from or after 10th May 1918.

The following transfers of Range Officers in the East Kurnool district are ordered.

Ranger N. L. Narasimham from Cumbum to Gudam Range.

Ranger Mir Abdul Hussain Kirimani Sabib, from Gudem to Rachakonda Range.

Ranger D. Ramakrishnayya, from Rachakonda to Cumbum Range.

May 21, 1918.

Under art. 260 of C. S. R., M. R. Ry., A. Raju Nayakar Avergal E. A. C. of Forests, is granted privilege leave for two months with effect from date of relief.

Under art. 260 of the C. S. R., M. R. Ry., A. R. Narasimha Ayyangar Avergal Extra Assistant Conservator of Forests (on probation), is granted privilege leave for two months with effect from date of relief.

The privilege leave for forty days granted to Mr. H. B. Bryant, Conservator of Forests, Central Circle is extended to two and a half months.

Mr. G. S. Lasrado, Extra Assistant Conservator of Forests, to be Special Working Plan Officer, Western Circle, in addition to his duties as District Forest Officer, North Malabar.

M. R. Ry., A. Hanumantha Rao Avergal, Extra Assistant Conservator of Forests on probation to be District Forest Officer, Vizagapatam, *vice* M. R. Ry., A. Raju Nayakar Avergal granted leave or until further orders.

May 28. 1918.

Muhammad Abdul Hafiz Sahib Bahadur, Probationary Extra Assistant Conservator is, on return from privilege leave, posted to work as Assistant to District Forest Officer, South Cuddapah district, until further orders.

June 4, 1918.

M. R. Ry., S. Sundaravarada Acharya, Ranger, fifth grade, Namakkal Range, is granted three months' privilege leave on medical certificate from date of relief.

Under art. 260 of the C. S. R., M. R. Ry., E. V. Padmanabha Pillay, Avergal Extra Assistant Conservator of Forests, is granted privilege leave for three months from or after 20th June 1918.

Mr. L. S. Janes, D. F. O., Kollegal to be District Forest Officer, Cuddapah west, with effect from or after 20th June 1918.

M. R. Ry., E. V. Padmanabha Pillai, District Forest Officer, Cuddapah west. on return from leave, to be D. F. O. Kollegal.

M. R. Ry., B. Chenchurama Nayudu, Ranger, fourth grade, in charge of Chamala range, Chittoor district, is transferred to the charge of Bukkapatnam range, Anantapur district. He will join forthwith.

M. R. Ry., B. B. Vaidyeswara Ayyar, Ranger, sixth grade, in charge of Bukkapatnam range, Anantapur district, on relief by No. (1), is transferred to Chamala range, Chittoor district.

Saiyid Edulla Sahib, Ranger, first grade, in charge of Natham range, Madura district, is granted privilege leave for two months from date of relief.

M. R. Ry., P. Mathuramuthu Pillai, Ranger, third grade, is transferred from Palani to Natham range.

Saiyid Edulla Sahib, is transferred from Natham to Palani range, on return from leave.

M. R. Ry., S. M. Krishnaswami Ayyar, Ranger, fourth grade, Tinnevelly range. is granted extension of leave for two months from 12th May 1918, i. e., privilege leave for nineteen days and medical leave for the remaining period in continuation of the one month's privilege leave granted by the District Forest Officer and approved of in this Office Service Order No. 54 of 1918 dated 29th April 1918.

M. R. Ry., K. L. Muniswami Ayyar, Ranger, second grade, Gudiyattam range, North Vellore Division, is granted privilege leave for two months and twenty seven days from date of relief.

June 11, 1918.

Mr. C. M. Hodgson, D. F. O., North Coimbatore, to be in charge of Kollegal in addition to his present duties with effect from or after 20th June 1918.

Saiyid Abdul-Qadir Sahib Bahadur D. F. O. North Cuddapah, to be Instructor Madras Forest College, Coimbatore.

M. R. Ry , K. G. Belliappa Avergal, D. F. O. South Cuddapah, to be in charge of North Cuddapah, in addition to his present duties.

M. R. Ry., R. Krishnaswami Ayyar, probationary Ranger, sixth grade, west Cuddapah district is transferred to North Cuddapah district to work under the orders of the D. F. O.

M. R. Ry., K. Rangasayi Nayudu, Ranger, fourth grade, is granted leave on medical certificate for two months from 25th April 1918 in continuation of the privilege leave for two months and twenty four days granted to him in this Office Service Order No. 31, dated 25th March 1918.

M. R. Ry., C. D. Parthasarathi Chetti, Ranger, fourth grade is, on return from leave, posted to the charge of Gudiyattam range as a temporary measure.

S. F Lobo, Deputy Ranger, third grade, to act as Ranger, sixth grade, *vice* M. R. Ry., K. Rangasayi Nayudu on leave, with effect from 1st February 1918.

June 18, 1918.

M. R. Ry., O. Venkataramana Ayyar, Ranger, first grade, on special duty at Guntakal in connexion with hay operations, is posted to the charge of Kodur Range, South Cuddapah district, as the special work has come to a close for this season to join forth with.

V. Jegannadham Pillay, Deputy Ranger, first grade, Anantapur district, appointed to act as Ranger, sixth grade, and posted to the charge of Bellary range in this Office S. O. No. 168, dated 5th November 1917, will continue to act as Ranger, sixth grade, *vice*, M. R. Ry., M. Subbarayulu Nayudu, Ranger, third grade, Nellore district on leave and to be in charge of Bellary range.

This Office S. O. No. 73, dated 5th June 1918, transferring M. R. Ry., R. Krishnaswamy Ayyar, Probationary Ranger, sixth grade, from West Cuddapah district to North Cuddapah district, is cancelled.

Mr. R. Ry., R. Krishnaswamy Ayyar, Probationary Ranger, sixth grade, attached to West Cuddapah district, is posted to the charge of Muddanur range of the same district in relief of acting Ranger M. Krishna Ayyar, appointed under the Irrigation Directorate, Mesopotamia.

M. R. Ry., P. Velayuthan Nair, Ranger, second grade, *Sub pro-tem*, in charge of Sholavandan range, Madura district, is granted privilege leave for one month from date of relief.

In partial modification of this Office Service Order No 57, dated 1st May 1918, the following postings of Rangers and Deputy Rangers returning from the Forest College are ordered :—

M. R. Ry., S. G. Venkataramanan, Probationary, Ranger, sixth grade, to Namakkal range, Trichinopoly District.

P. S. Saiyid Yahia Sahib, Probationary Ranger, sixth grade, to South Vellore, for special duty connected with the collection of lance staves.

June 25 1918.

The transfers ordered in this office (central circle) Service Order No. 69, dated 26th May 1918 are cencelled.

M. R. Ry., B. Chenchurama Nayudu, Ranger, fourth grade, transferred to Bukkapatnam range, Anantapur district, is re-posted to the charge of Chamala range, Chittoor district and to hold charge until further orders.

The postings of the undermentioned subordinates undergoing training at the Madras Forest College are ordered :—

(1) M. Narasinga Rao. Nayudu, Deputy Ranger, second grade, for the charge of Bontha range, Ganjam.

(2) I. Sambasiva Rao Nayudu, Deputy Ranger, second grade, for the charge of Bugada range, Ganjam.

(2) B. S. Sankaran, Deputy Ranger, first grade, for the charge of Polavaram Range, Lower Godavari.

(4) T. S. Ratnavelu Mudaliar, Deputy Ranger, second grade, for the charge of Bhadrachalum range, Upper Godavari.

M. R. Ry., B. Ramuni Menon. Ranger, third grade, sub *pro-tem.*, and Senior Instructor, Vernacular Training School, on expiry of the session, is posted to the charge of the Russellkonda range, Ganjam.

Under art. 260 of the C. S. R., M. R. Ry., K. Tatachari, Ranger fifth grade, is granted privilege leave for three months with effect from date of relief.

July 7, 1918.

The following Deputy Rangers, who came out of the Madras Forest College in 1918 with certificates are appointed temporary rangers sixth grade on probation for one year from 1st July 1918 :—

A. Bhavayya, Chittoor district ; A. Muthukrishnan, North Cuddapah ; C. R. Rajagopalan, Nellore ; V. Vyasalu, Bellary.

M. R. Ry., S. Sankara Alwa, a private student, of the Madras Forest College who obtained M. R. H. certificate is appointed to

act as temporary ranger, sixth grade on probation for one year and is posted to work under the Range Officer, Rajampet Range. South Cuddapah district.—To join his post on 1st August 1918 without fail.

The leave on medical certificate under 336 C. S. R. for one month granted to M. R. Ry., K. R. Krishnan Nayar, Ranger, 4th grade, Nilgiris, is extended by two months.

July 16, 1918.

Mr. D. A. Stracey, Extra Assistant Conservator of Forests and D. F. O., Bellary, is, on relief by Mr. L. S. James, posted to Kurnool district to work under the D. F. O., West Kurnool.

Mr. I. John (M. R. H.) of Travancore is appointed to act as Ranger, sixth grade, on probation for one year, *vice*, M. R. Ry., T. M. Duraiswami Pillai, Probationary Ranger, deputed to the Madras Forest College, Coimbatore and Ranger Mr. Mahony's vacancy and is posted to Chingleput district to work under the orders of the D. F. O. To join duty on 1st August 1918 without fail.

The transfer of M. R. Ry., O. Venkataramana Ayyar, Ranger, first grade to the Bapatla range charge, Guntur district, and the grant of 3 months' privilege leave to M. R. Ry., Vasudeva Reddi, Ranger, first grade, in charge of Bapatla range, Guntur district, ordered in paragraphs 3 and 4 of this Office S. O. No. 90 of 1918, dated 25th June 1918, are cancelled.

M. R. Ry., O. Venkataramana Ayyar, Ranger, 1st grade, in charge of Kodur range, South Cuddapah district, on relief of the Range charge by M. R. Ry., C. S. Ramanathan, Ranger, sixth grade, is posted to the charge of the newly formed Ganjanapalle range of West Cuddapah district.

M. R. Ry., C. Balayya Naidu, Ranger, fifth grade, in charge of Chandragiri range, Chittoor district, will be considered to have been in additional charge of Chamala range of the same district during the period 11th June 1918 to 1st July 1918.

Saiyid Yahia Sahib, Probationary Ranger, sixth grade, posted to South Vellore in this Office S. O. No. 83 of 1918 dated 6th June 1918 is transferred to Tinnevelly district for the charge of Courtallam Range, *vice*, M. R. Ry., P. A. Krishnaswami Mudaliyar, Ranger, sixth grade, proposed to be granted leave.

The following promotions from the class of Deputy Ranger are ordered.

(1) B. S Sankaran, Deputy Ranger, first grade to act as Ranger, sixth grade, *sub pro-tem vice*, Ranger P. Lakshman Chetti deceased.

(2) I. Sambasiva Rao Nayudu, Deputy Ranger, second grade, to act as Ranger, sixth grade, *sub pro-tem vice*, Ranger T. V. Subba Rao Nayudu, suspended.

(3) T. S. Ratnavelu Mudaliar, Deputy Ranger, second grade, to be Ranger, sixth grade, temporary.

(4) M Narasinga Rao Nayudu, Deputy Ranger, second grade, to act as Ranger, sixth grade, *vice*, M. R. Ry., T. E. Varadachari granted leave.

(5) B. Gulam Dustir temporary Ranger, sixth grade, to act as Ranger, sixth grade, *sub pro-tem*, from date of relief at the Vernacular Training School, *vice*, Ranger C. T. Tiruvengadam suspended.

July 23, 1918.

T. Krishnan Nair, Deputy Ranger, to act as Range, Officer, Erode range.

T. Kondathu Goundan, probationary Ranger, is posted to Mudumalai as Assistant Ranger.

The following confirmations are ordered with effect from 30th June 1917.

1. K. Venkataramanan, Deputy Ranger, first grade and, Ranger, sixth grade, sub *pro-tem* to be Ranger sixth grade.

2. C. Karunakara Menon, Ranger, sixth grade, sub *pro-tem* to be Ranger, sixth grade.

3. M. Rama Rao Kini, Deputy Ranger, second grade, and Ranger, sixth grade, sub *pro-tem*, to be Ranger, sixth grade.

Under art. 260 of the C. S. R., M. R. Ry., C. Karunakara Menon, Ranger, sixth grade, Mangalore North Division, is granted privilege leave for two months from date of relief.

M. R. Ry., R. Guruswami Ayyar, Range Officer Coondapur, will hold charge of Shankaranarayana range, in addition to his own, during the above period.

Balance sheet of accounts of the Madras Forest

Receipts.

Items.	Particulars.	Amount. Rs.	A.	P.
1	Arrears subscription from 20 subscribers for the year 1916—1917 (volume I)			
	(i) Entrance donation @ Rs. 2/- each ...	40	0	0
	(ii) Annual subscription @ Re. 1/- each ...	20	0	0
2	Annual subscription for 1917—18 from 184 old members @ Re. 1/- each	184	0	0
3	ENTRANCE DONATION FROM :—			
	1 Imperial officer	10	0	0
	3 Provincial officers @ Rs. 5/- each ...	15	0	0
	38 Subordinate officers @ Rs. 2/- each ...	76	0	0
4	Annual subscription for 1917—18 from 42 new members @ Re. 1/- each	42	0	0
5	Annual subscription for 1918—19 from two members	2	0	0
6	Receipts towards advertisement charges ...	72	8	0
7	Amount withdrawn from the bank ...	6	8	0
8	Interest accrued on the deposit in the bank ...	4	7	3
9	V. P. Recoveries	10	1	6
10	Amount received in excess from 3 subscribers ...	5	4	0
11	Cash balance including balance at bank at the commencement of the year	569	10	3
	Total ...	1057	7	0

G. Visvanatham, E. M. Crothers,

College Magazine for the year 1917—1918.

Expenditure.

Items.	Particulars.	Amount. Rs.	A.	P.
1	Cost of 4 numbers of volume II of the magazine..	376	9	3
2	Stationery, Wrappers etc., ...	12	12	0
3	Postal charges	48	7	0
4	Cost of 300 half-tone prints of a photograph of the Madras Forest College and Museum ...	28	10	0
5	Advance made to the Press for purchasing paper.	75	0	0
6	Amount refunded to 3 subscribers being excess subscription	5	4	0
	Total ...	456	10	3
	Add cash balance with the treasurer on 1-9-1918.	4	9	3
	Add amount deposited in the bank including interest accrued on the deposit ...	506	3	6
	Total ...	1057	7	0

F. L. C. Cowley-Brown,

Advertisement Rates.

The Magazine is expected to have a wide circulation among Forest Officers in the Madras Presidency. Such articles as are useful to them as camp equipments, books, mechanical appliances, transporting gear etc., etc., can be advertised with advantage through this medium.

The following is the Schedule of rates.

	Single Insertion.	Per annum.
For full page	Rs. 6.	Rs. 12.
Half page	Rs. 4.	Rs. 8.
Quarter page	Rs. 2 as. 8	Rs. 5.

Preparation of blocks unless supplied by the advertiser, charged extra.

Charges are payable in advance; the advertisements are subject to the approval of the ~~working~~ Committee of management before insertion.

All business communications should be addressed to :

The Manager, Madras Forest College Magazine,
Madras Forest College, Lawley Road, P. O.,
Coimbatore.

Literary communications should be addressed to :

The Editor, M. F. C. Magazine,
Madras Forest College, Lawley Road, P. O.,
Coimbatore.

All remittances may be made to:

The Treasurer, M. F. C. Magazine,
Madras Forest College, Lawley Road, P. O.,
Coimbatore.